

Please replace the paragraph beginning at page 6, line 31 with the following:

In the illustrated example, as the soot preform 10 is dried and partially sintered, germanium contained within first region 20 is prevented from migrating into second region 22 by glass barrier layer 28, while fluorine doped within second region 22 is prevented from migrating to within first region 20 by glass barrier layer 28. During the drying and partial sintering steps, fluorine doped within second region 22 migrates into third region 24, thereby resulting in an approximate profile as shown in Fig. 5, that would be exhibited by an optical waveguide fiber drawn from soot preform 10 subsequent to the partial sintering step.

Please replace the paragraph beginning at page 7, line 18 with the following:

$1/3 \text{POCl}_3 + \frac{1}{4} \text{SiF}_4 + \frac{1}{2} \text{O}_2 \rightleftharpoons 1/3 \text{POF}_3 + \frac{1}{4} \text{SiO}_2 + \frac{1}{2} \text{Cl}_2,$   
has a  $\Delta G$  of -8.5 Kcal per mole. The reaction to form  $\text{POF}_3$  goes forward even while stripping fluorine from  $\text{SiF}_4$ .  $\Delta G_f$  for species such as  $\text{SiO}_{3/2}\text{F}$  are not readily available, but since the silicon oxyfluorides spontaneously decompose to  $\text{SiF}_4$  and silica at temperatures above 1300°K, it is safe to say that  $\Delta G_f(\text{SiO}_x\text{F}_y) > \Delta G_f(\text{SiF}_4)$  so that the reaction above describes an upper limit for the reaction energy for stripping fluorine from fluorinated silica. In the present example, the stripping agent preferably includes  $\text{POCl}_3$ . The approximate refractive index profile an optical waveguide fiber 46 (Fig. 6) resulting from preform 10 after being completely sintered is shown in Fig. 7. Fiber 46 includes a core region 48, a moat or first radial portion 22 surrounding core region 20, and an overclad or second radial portion 24 surrounding first radial portion 22, which correspond to first region 20, second region 22 and third region 24 of soot preform 10.

#### IN THE CLAIMS

Please amend claim 16 as follows:

16. (amended) The method of claim 15 wherein the drying step includes selecting the drying agent from a group including chlorine, germanium chloride, germanium tetrachloride, silicon tetrachloride, and combinations thereof.